Medium_EnglishPassage_2017
The Discovery of Penicillin

Words: 523, Characters: 3558 **LEVEL: MEDIUM**

The discovery of penicillin remains one of the most critical breakthroughs in the 81
history of modern medicine, fundamentally changing how doctors treat bacterial 160
infections. Before this miraculous discovery, minor cuts, simple scratches, and 240
common diseases like pneumonia were frequently fatal because there were no 315
effective treatments available to combat bacterial pathogens. The story of this 395
life-saving drug began on September 3, 1928, in a cluttered laboratory at St. Mary's 480
Hospital in London. A Scottish researcher named Alexander Fleming returned from a 562
family vacation to find that one of his glass petri dishes, which he had left uncovered, 651
had become contaminated with a strange blue-green mold. Upon closer inspection, 731
Fleming noticed something extraordinary: the bacteria immediately surrounding the 813
mold had been completely destroyed, leaving a clear ring. He identified the mold as a 899
rare strain called Penicillium notatum and quickly realized that it was producing a 983
potent chemical substance capable of killing harmful bacteria. Fleming published his 1068
groundbreaking findings in a medical journal in 1929, but his discovery initially 1150
received very little attention from the scientific community. It was exceedingly 1231
difficult to extract and purify the active chemical, so the project stalled for several 1319
years. It was not until the late 1930s that two brilliant scientists, Howard Florey and 1407
Ernst Chain, working at Oxford University, revived Fleming's research. In 1940, they 1492
successfully purified enough penicillin to test its effectiveness on mice infected with 1580
deadly bacteria, yielding incredibly promising results. By the year 1941, the team 1663
administered their first purified dose to a human patient, a police officer suffering 1749
from a severe infection, and witnessed a remarkable, albeit temporary, recovery. The 1834
onset of World War II dramatically accelerated the need for this miracle drug, as 1916
millions of soldiers were dying not from bombs, but from infected battlefield wounds. 2002
The British scientists traveled to the United States in July 1941 to seek assistance in 2090
mass-producing the medicine. By utilizing large fermentation tanks and developing 2172
new chemical techniques, American pharmaceutical companies were able to scale up 2253
production dramatically. By June 6, 1944, famously known as D-Day, they had 2329
manufactured enough penicillin to treat all severe casualties among the Allied forces, 2416
saving countless lives. Following the end of the war in 1945, Fleming, Florey, and 2499
Chain were jointly awarded the Nobel Prize in Medicine for their monumental 2575
contribution to humanity. The widespread availability of penicillin ushered in the 2658
golden age of antibiotics, leading to the rapid development of numerous other drugs 2742
designed to fight various infections. Average life expectancy increased significantly 2828

© 2026 TypingGuru App
Download From Playstore

during the twentieth century, largely due to the successful control of infectious 2910
diseases. However, today, the medical community faces a new challenge known as 2989
antibiotic resistance. Because antibiotics have been overused in both human medicine 3074
and agriculture over the past several decades, many bacteria have evolved to survive 3159
these treatments. Health organizations worldwide are now urging the careful and 3239
regulated use of these crucial medicines to preserve their effectiveness. The 3317
accidental discovery of penicillin serves as a powerful reminder of how keen 3394
observation, scientific collaboration, and a bit of luck can profoundly alter the course 3483
of human history and improve global public health for generations to come. 3558